

REMARKS/ARGUMENTS

Claims 1 and 2 were rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The examiner argues, “It is not clear as to how a segmented word can be interpreted as a compound word.” Applicant respectfully submits that a compound word by its very nature can be interpreted from a segmented word. Indeed, referring to the prior art patent Carus et al. an example is given demonstrating that it was very well known in the art that a segmented word may be interpreted as a compound word. In the example, a string segmented into the components “versicherung” and “gesellschaft” are combined by the linking component “s” in the compound word “versicherungsgesellschaft”. The first component is interpreted as “insurance”, the second component is interpreted as “company”. The compound word is thus interpretable as meaning insurance company. Thus, contrary to the Examiner’s assertion in the action, a segmented word can be interpreted as a compound word.

The Examiner argues that if steps of the invention are applied to a word such as “catwalk”, the word “catwalk” is not interpretable as a compound word. Applicant’s counsel wishes to thank the Examiner for speaking with him on the telephone on March 6, 2007. Applicant’s counsel inquired whether the present amendment substituting “is interpreted” for “interpretable” would overcome the rejection. The Examiner agreed that the §112 rejection could be withdrawn.

Analysis of natural-language text is a complex field and perfection is rarely achievable. Nevertheless, the language of the claims is clear and concise. Applicant respectfully submits that application of the claimed acts to the term “catwalk” interprets the word as a compound word meaning “cat” and “walk”. While this may be a misinterpretation, that is what the claimed method does. It is recognized that other methods may be required to obtain the correct interpretation. For example, the word “catwalk” might be included in the lexicon making interpretation simple. The word “versicherungsgesellschaft” might not be in the lexicon and therefore, Applicants’ invention may be more beneficial with respect to such a word. While the claimed

invention may be misled from time to time, the scope of the claim as amended is clear. Applicant submits that the claims satisfy the requirements of §112.

Claims 1-2 and 10 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Carus in view of Hamamura. Carus describes a method and apparatus for morphological analysis and only gives passing reference to compounding. To the extent that Carus does describe compounding it refers specifically to a “lookup table identifying rules regarding the compounding characteristics.” (col. 9, lines 38-40). Carus would thus lead one of ordinary skill in the art interested in compounding to use a rules based analysis. Carus does not provide even the slightest suggestion of breakpoint analysis for analyzing compound words in an unrestricted natural-language input. Hamamura, on the other hand, relates to character and word recognition and word delimiting. The Examiner argues that Hamamura discloses a breakpoint analysis. As such, the suggestions of Carus lead one nowhere near the Hamamura patent. Applicant respectfully submits that there is no suggestion, teaching or motivation to combine Carus and Hamamura. For this reason, claims 1, 2 and 10 should be allowed.

Moreover, the elements of the claimed invention are not found even if a combination of Carus and Hamamura were made. The Examiner asserts that Carus discloses a method for segmenting a compound word. The Examiner does not identify what that method is and, indeed, no such method can be found in the Carus disclosure. Carus mentions a compound info field and the identification of rules. It does not provide any guidance as to how to determine those rules nor does it provide any guidance as to how the system populates the compound info field. The Examiner argues that the act of “identifying a plurality of linkable components by traversal of substrings of the natural-language input delimited by the set of probabilistic breakpoints” is found in Carus. Applicant finds absolutely no basis for this assertion. Indeed, Carus fails to disclose the use of probabilistic breakpoints with regard to compound words. Carus does disclose fields that can be used to identify the components of a compound word. However, Carus provides no suggestion, disclosure or teaching of traversing substrings of natural-language delimited by probabilistic breakpoints.

The Examiner concedes given Applicant’s arguments in the previous response that Hamamura also “does not appear to segment compound words.” As argued

previously, Applicant's invention requires traversal of substrings of the natural-language input that have been delimited by the breakpoints. By way of example, the invention describes traversal breakpoints at page 20, paragraph 005. Such traversal of potential breakpoints is not found by Applicant in Hamamura. Thus, neither of the references alone or in combination provide all of the acts and elements of the claimed invention. For these additional reasons, claims 1, 2 and 10 should be allowed.

Claim 10 is more explicit in specifically identifying the order of traversing breakpoints. Claim 10 specifies that the order is determined by probabilities obtained in the probabilistic breakpoint analysis. The Examiner refers to a discussion of character recognition in Hamamura at column 9, lines 9-14. Hamamura provides absolutely no discussion of an order for traversing breakpoints. Hamamura merely mentions recognizing characters in order from the leftmost character to the rightmost. Traversing breakpoints in an order determined by probabilities is neither suggested, disclosed nor taught by Hamamura. For this additional reason, claim 10 should be allowed.

Applicant respectfully submits that neither Carus nor Hamamura are even applicable to Applicant's invention which relates to segmenting compound words. For all of the above stated reasons, Applicant submits that all claims pending in the present application are allowable over the art of record and early notice to that effect is respectfully solicited.

Respectfully submitted,

/Robert M. Asher/

Robert M. Asher
Reg. No. 30,445
Bromberg & Sunstein LLP
125 Summer Street, 11th Floor
Boston, MA 02110-1618
(617) 443-9292
Attorney for Applicant